CITY OF TALLAHASSEE	
CITY COMMISSION AGENDA ITEM	
ACTION REQUESTED ON:	December 10, 2003
SUBJECT/TITLE:	Approval of Route Selection for Eastern Transmission Line (Transmission Line 9A)
TARGET ISSUE:	

Statement Of Issue

The Electric Utility has identified the need for additional substation capacity on the eastern side of the electric service area due to high load growth. In 2001, staff identified Mahan Drive as a likely route for the transmission line to serve a new substation. Since Mahan Drive has been designated as a "gateway" into the community, the Electric Utility initiated a study of alternative potential routes for the new transmission line and engaged a route consultant to study the land use issues, environmental features, and accept public input. In addition to the issues addressed by the consultant, the Electric Utility staff has reviewed engineering and construction requirements, permitting issues, and rights of way (ROW) acquisition issues in their identification of a preferred route. Based on their review, the route consultant recommended Route N, using the CSX ROW and traversing the Buck Lake area. However, after consideration of additional issues, the Electric Utility recommends Route A utilizing Mahan Drive, as the preferred route of the new transmission line. The approval of the City Commission is requested for the construction of an overhead transmission line along this route.

Recommended Action

Approve Option 1: Conduct a third public workshop on January 6, 2004 at Capital City Christian Church. Provide feedback to the City Commission and ask for approval of a route on January 14, 2004.

Fiscal Impact

Option 1: None. Minimal costs to hold the meeting.

Kevin G. Wailes	Anita R. Favors
General Manager, Electric Utility	City Manager

For information, please contact: Kevin G. Wailes, General Manager, Electric Utility, Ext. 5532

Item Title: Approval of Route Selection for Eastern Transmission Line (Transmission Line 9A)

SUPPLEMENTAL MATERIAL/Issue Analysis

History/facts & Issues

1. The peak loading on the major substations on the east side of the City's electric system is approaching the maximum capacity of the substations. These conditions stress the ability of the electric system to provide back-up service for the loads in the event of a major substation failure during peak conditions. Furthermore, under extraordinary peak load conditions like extreme low temperatures, there is inadequate capacity to reliably serve existing customers. A temporary substation, BP-49, has already been constructed and now an additional distribution feeder is needed to support the area load. Growth on the electric system continues, and the load is projected to increase at a rate of approximately 3 percent per year in the near future. Considering that substations in the east part of the service territory are approaching maximum load, major problems are likely to occur if the

proposed substation and transmission line are not in service in the near future.

2. Reliability is a critical element in the operation of the Electric Utility. As a standard design practice for reliability, residential and commercial customers' electricity service should be able to be supplied from a number of alternative substations in the area if a major outage occurs. A permanent substation site, BP-17, on Mahan Drive at Mystic Warrior Trail, has been acquired and is in the process of being permitted and designed. This new substation will need to be connected to the electric system via a transmission line.

3 The Electric Utility recognized that a likely potential route would be Mahan Drive. Due to the timing of the Mahan Drive FDOT project, the Electric Utility presented an agenda item to the City Commission on June 13, 2001 and received authorization to proceed with the construction of an overhead line on the Mahan Drive corridor from Weems Rd. to Mystic Warrior Trail. However, after further consideration of the fact that Mahan Drive serves as a gateway into the Tallahassee community and based on the desire to get additional citizen involvement, the construction was postponed until an independent route study could be conducted.

4. In June 2002, the Electric Utility contracted with Exponential Engineering Company and their subconsultant, EDAW, to perform an independent analysis of all potential routes for the transmission line. The route consultant met with various City, County, and State Agencies to review available environmental data and land use information.

5. Public Workshops were held on August 27, 2002 and April 22, 2003 after approximately 7600 notices were mailed to residents, notices were published in the Tallahassee Democrat and signage was provided in the impacted area. Public comments were recorded after each workshop, and an extended comment period after the second workshop was provided to allow more time for public input. Also, Homeowner's Association resolutions were received from Weems Homeowner's Association, Meadow Hills Neighborhood Association and Lafayette Estates Homeowner's Association.

6. The route consultant analyzed the information gathered from the various agencies and the public to develop a matrix of route alternatives and issues important to the Community. The purpose of the matrix was to determine the route that had the least impact for all criteria. Thirty-three alternative routes were evaluated and scored in categories such as Residential Properties, Public and Commercial Interests, Physical Resources, Visual Considerations, and Biological Resources.

7. Of those 33 potential routes the consultant selected six for further detailed analysis. These six were Route A, Route E, Route F, Route P, Route T, and Route N. The final report from the route consultant was issued to the City in late September 2003. The route consultant recommended Route N as the preferred route, which is a combination of CSX Railway and a portion of Buck Lake Road, and Route F as the second preferred route. After the second public workshop, the consultant reexamined and revised his scoring which caused some changes in the final scoring on various routes. Route AD, which had been one of the highest ranked alternatives presented at the second public workshop, was subsequently replaced by the consultant with Route N. From a public perspective, this route should be viewed very comparable to Route AD, because it utilizes significant portions of that route.

8. Underground construction of this line was also considered, however staff recommends overhead construction for reliability, environmental and cost considerations. This transmission line will be the only source for Substation BP17 until a transmission loop is completed connecting BP17 to future Substation BP14 near Centerville Road on Welaunee Plantation and then to existing Substation BP7 on Martin Hurst Road. A fault in the cable of an underground transmission line would result in a lengthy outage likely lasting a week or longer due to the complexity of repairing an underground transmission system. Additionally, an underground installation is not environmentally benign. Large areas must be cleared for installation of concrete vaults for cable splicing approximately every 2000 feet, and significant clearing would need to be done for cable trench excavation. Finally, the cost of underground construction greatly exceeds the cost of comparable overhead installations. In this case, the estimated cost for underground is approximately twelve times the estimated cost for the overhead option for Route A. Although there may be some savings for tree trimming and other maintenance costs, those savings would not compensate for the greater capital cost of underground.

Staff recommended route at this time:

The Electric Utility staff does not concur with the route consultant's recommendation. Instead, staff recommends Route A (as defined by the Line 9A Transmission Line Routing Study Report dated September 2003) along Mahan Drive, for the following reasons:

a) The survey data from the first public workshop had the highest number of respondents, 22 out of a total of 65, asking for "a route with the least impact on families, homes and land, which would mean using only existing right-of-way, main roads and commercial areas. Route A follows this request as closely as possible.

b) Although the residents of the Lafayette Estates Homeowner's Association collectively opposed the use of Route A, an overwhelming majority of the responding public preferred this route over the alternatives presented at the second Public Workshop. The Meadow Hills Neighborhood Association requested the line be installed underground if it is in residential areas. The Weems Homeowner's Association opposed any route using Buck Lake Road and preferred routes that did not impact their community. They also commented that if Route A were selected, the existing distribution poles should be incorporated into the new line. Electric Utility staff attended two Buck Lake Alliance meetings and presented information concerning the project. The Buck Lake Alliance concurs with the use of Route A. Below is the compilation of the resident's preference:

Route A 177

Route E 5

Route F 6

Route P 53

Route T 51

Route AD 19

Route O 1

No route 1

Don't favor or don't have a preferred route 7

Information is too much and not relevant for what is needed 1

Don't favor any route as long as the line is underground 1

c) Route A is the most economical overhead line route.

d) The use of Route N as the preferred alternative is problematic, including liability terms generally imposed by CSX upon owners of facilities in the railway corridor. The City Attorney's office has recommended against the use of CSX right-of-way for this reason.

e) Route N impacts approximately 3.5 miles of homes and land not currently impacted by any overhead electric line. Route F impacts approximately 2.33 miles of homes and land not currently impacted by any overhead electric line. All of proposed Route A is currently impacted by overhead electric lines.

f) Route N or Route F would likely require the City to condemn some of the property for construction of the transmission line, whereas Route A is proposed to be built primarily on existing right-of-way.

g) The survey data suggests that the public perceives Buck Lake Road as different in character than Mahan Drive. Mahan Drive is considered a major highway through the community while Buck Lake Road is considered a rural route. The community prefers that it be kept that way. Any route (Routes E, F and N) that includes the use of Buck Lake Road would impact the rural character.

h) The Electric Utility has considered ways to minimize the impact of construction. For reliability reasons, trees within 20 feet of a transmission line normally would be trimmed. However for this project the utility will reduce the clearance to approximately 11 feet and increase the frequency of the trimming cycle. This will effectively provide a greater buffer. During the design stage, special care will be taken to select the sides of the road with the least impact on trees and to select the locations that provide some screening. In addition, the future distribution circuits from Substation BP17 will be installed underground on Mahan at an estimated increased cost of $3,000,000, which will decrease the visual impact of the project.

Procurement Services and Budget & Policy have reviewed this agenda item and concur that it meets purchasing and budget guidelines.

While two public meetings were held already, we believe that a third public meeting on January 6, 2004 at Capital City Christian Church will provide more information for the City Commission to consider in making a final decision.

Options

Option 1: Conduct a third public workshop on January 6, 2004 at Capital City Christian Church. Provide feedback to the City Commission and ask for approval of a route on January 14, 2004.

Option 2: Approve the construction of a new overhead transmission line along Route A, as defined by the Line 9A Transmission Line Routing Study Report dated September 2003.

Option 3: Approve the construction of a new overhead transmission line along Route N, as defined by the Line 9A Transmission Line Routing Study Report dated September 2003.

Option 4: Approve the construction of a new overhead transmission line along Route F, as defined by the Line 9A Transmission Line Routing Study Report dated September 2003.

Fiscal Impact

Option 1: None. Minimal costs to hold the meeting.

Option 2: $5,440,000 (excluding the cost of future underground distribution circuits associated with the BP-17 Project). Funding was included in the existing Electric Utility Capital Improvement Projects (CIP) Budget. Project 00534 "Transmission Line 9A, BP9-17" has available funds in the amount of $2,309,896.85, and the balance will be funded out of project 04037 "Master – Electric System Construction and Improvements", which has an available amount of $12,498,249.07.

Option 3: $8,900,000 (excluding the cost of future underground distribution circuits associated with the BP-17 Project). Funding is not included in the existing Electric Utility Capital Improvement Project (CIP) Budget.

Option 4: $6,700,000 (excluding the cost of future underground distribution circuits associated with the BP-17 Project). Funding is not included in the existing Electric Utility Capital Improvement Project (CIP) Budget.

Attachments/references

None